

IN THE CLAIMS

1-3. (Cancelled)

4. (Currently Amended) The system of claim ~~[[2]]~~18 wherein the at least one switch comprises a plurality of switches connected in parallel.

5. (Previously Presented) The system of claim 18, the plurality of stacked cells comprising at least two vertically stacked assemblies of stacked cells, with each assembly including a corresponding stack leak containment member;

wherein at least one upper stack leak containment member associated with an upper assembly of the at least two stacked assemblies includes an overflow opening which directs an overflow of the uncirculated electrolytic fluid into a lower stack leak containment member associated with a lower of the at least two stacked assemblies.

6. (Previously Presented) The system of claim 5 wherein the upper and lower stack leak containment members include corresponding sensors for detecting presence of an uncirculated electrolytic fluid.

7-10. (Cancelled)

11. (Previously Presented) The leak detection system of claim 18 wherein the controller includes a means for signaling the condition of the sensor to a user.

12-17. (Cancelled)

18. (Currently Amended) A leak detection system for a flowing electrolyte battery having a housing and a plurality of stacked cells within the housing, and electrolytic fluid circulating through the interior of the stacked cells, the system comprising:

a stack leak containment member within the housing, the stack leak containment member disposed underneath of and surrounding at least a portion of the plurality of

stacked cells, the stack leak containment member collecting electrolytic fluid leaking from the plurality of stacked cells; and

a sensor disposed in a space between the interior of the stack leak containment member and exterior to the stacked cells, the sensor detecting the presence of uncirculated electrolytic fluid in the space when the uncirculated electrolytic fluid contacts the sensor; the sensor having:

at least one switch comprising a first plate and a second plate; wherein

uncirculated fluid within the stack leak containment member forms an electric current path between the first and second plates;

a controller associated with the switch, the controller capable of sensing presence or absence of the current path; and

a resistor connected in parallel to the switch.

19. (Previously Presented) The leak detection system of claim 18, wherein the sensor comprises resistivity measurement circuitry.

20. (Previously Presented) The leak detection system of claim 19, further comprising:

leak detection logic, the leak detection logic in electrical communication with the resistivity measurement circuitry;

wherein, the leak detection logic determines the presence of uncirculated electrolytic fluid based, at least in part, on the output of the resistivity measurement circuitry.

21. (Previously Presented) A leak detection system for a flowing electrolyte battery having a reservoir containing electrolytic fluid, comprising:

a reservoir leak containment member disposed underneath and exterior to the reservoir, the reservoir leak containment member collecting electrolytic fluid leaking from the reservoir; and

a sensor disposed in a space between the interior of the reservoir leak containment member and exterior to the reservoir, the sensor detecting the presence of

uncirculated electrolytic fluid in the space between the interior of the reservoir leak containment member and the exterior of the reservoir.

22. (Previously Presented) The system of claim 18, comprising:  
an electrolyte reservoir for supplying electrolytic fluid to the plurality of stacked cells,  
said electrolyte reservoir having a reservoir leak containment member disposed underneath and exterior to the electrolyte reservoir, and  
a reservoir sensor disposed in a space between the interior of the reservoir leak containment member and exterior to the electrolyte reservoir, the reservoir sensor detecting the presence of fluid in the space between the interior of the reservoir leak containment member and the exterior of the electrolyte reservoir.

23. (Previously Presented) The system of claim 22, wherein the stack leak containment member is located above the reservoir leak containment member and includes an overflow opening which directs an overflow of the electrolytic fluid into the reservoir leak containment member disposed underneath the stack leak containment member.

*(previously presented)*

24. ~~(New)~~ A leak detection system for a flowing electrolyte battery having a housing and a plurality of stacked cells within the housing, and electrolyte fluid circulating through the interior of the stacked cells, the system comprising:  
a stack leak containment member within the housing, the stack leak containment member disposed underneath of and surrounding at least a portion of the

the plurality of stacked cells, the stack leak containment member collecting electrolyte fluid leaking from the plurality of stacked cells; a sensor disposed in a space between the interior of the stack leak containment member and exterior to the stacked cells, the sensor detecting the presence of leak electrolyte fluid in the space when the leak electrolyte fluid contacts the sensor; an electrolyte reservoir for supplying electrolyte fluid to the plurality of stacked cells, said electrolyte reservoir having a reservoir leak containment member disposed underneath and exterior to the electrolyte reservoir, and a reservoir sensor disposed in a space between the interior of the reservoir leak containment member and exterior to the electrolyte reservoir, the reservoir sensor detecting the presence of fluid in the space between the interior of the reservoir leak containment member and the exterior of the electrolyte reservoir;

wherein the stack leak containment member is located above the reservoir leak containment member and includes an overflow opening which directs an overflow of the electrolyte fluid into the reservoir leak containment member disposed underneath the stack leak containment member.

*(previously presented)*

25. ~~(New)~~ A leak detection system for a flowing electrolyte battery having a housing and a plurality of stacked cells within the housing, and electrolyte fluid circulating through the interior of the stacked cells, the system comprising:
- a stack leak containment member within the housing, the stack leak containment member disposed underneath of and surrounding at least a portion of the plurality of stacked cells, the stack leak containment member collecting electrolyte fluid leaking from the plurality of stacked cells;
  - a sensor disposed in a space between the interior of the stack leak containment member and exterior to the stacked cells, the sensor detecting the presence

of leak electrolyte fluid in the space when the leak electrolyte fluid contacts the sensor;  
leak detection logic, the leak detection logic in electrical communication with the sensor;  
wherein, the leak detection logic is capable of discriminating between the presence at the sensor of condensation and leak electrolyte fluid based, at least in part, on measurement of resistivity of fluid at the sensor.